CLAIMS

What is claimed is:

1. A composition for the treatment of acute pancreatitis in a mammal comprising,
   a. a first element comprising a binding element able to specifically bind a pancreatic cell surface marker under physiological conditions,
   b. a second element comprising a translocation element able to facilitate the transfer of a polypeptide across a vesicular membrane, and
   c. a third element comprising a therapeutic element able, when present in the cytoplasm of a pancreatic cell, to inhibit enzymatic secretion by said pancreatic cell.

2. The composition of claim 1 wherein said pancreatic cell is an acinar cell and said cell surface marker is a CCK receptor.

3. The composition of claim 1 wherein said therapeutic element will cleave a SNARE protein and cleavage of said SNARE protein inhibits said secretion.

4. The composition of claim 3 wherein said SNARE protein is selected from the group consisting of syntaxin, SNAP-25 and VAMP.

5/4. The composition of claim 2 wherein said therapeutic element will cleave a SNARE protein, wherein cleavage of said SNARE protein inhibits said secretion.

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6/5. The composition of claim 5 wherein said SNARE protein is selected from the group consisting of syntaxin, SNAP-25 and VAMP.

7/6. The composition of claim 5 wherein said CCK receptor is the human CCK A receptor.

8/7. The composition of claim 7 wherein the binding element of said thereapeutic polypeptide comprises a human CCK A amino acid sequence modified by the presence of a C-terminal amidated phenylalanine and a sulfated tyrosine at the position 7 residues from the carboxyl terminus.

9/8. The composition of claim 8 wherein said CCK A amino acid sequence comprises SEQ ID NO: 6.

10/9. The composition of claim 9 wherein said CCK A amino acid sequence comprises SEQ ID NO: 5.

11/10. The composition of claim 9 wherein said CCK A amino acid sequence comprises SEQ ID NO: 4.

12/11. The composition of claim 9 wherein said CCK A amino acid sequence comprises SEQ ID NO: 3.

13 ~~12~~. The composition of claim 9 wherein said CCK A amino acid sequence comprises SEQ ID NO: 2.

14 ~~13~~. A method for making a therapeutic polypeptide having a binding element selective for a CCK receptor comprising:

a) expressing within a host cell a recombinant chimeric polypeptide comprising an extein comprising a therapeutic element and a translocational element, and an intein located to the carboxyl terminal side of said extein having at its amino terminus an first amino acid selected from the group consisting of cysteine, serine or threonine,

b) contacting said extein with

c) a synthetic peptide comprising a CCK amino acid sequence containing modifications comprising the presence of an amidated phenylalanine at a natural C-terminus of said sequence, and further containing at an N-terminus a second amino acid selected from the group consisting of cysteine, serine or threonine,

ii) a nucleophilic reagent able to cause cleavage of said intein from the C-terminus of said extein and the subsequent formation of a peptide bond between said extein C-terminus and the N-terminus of said synthetic peptide through the formation of an activated ester or thioester intermediate.

15~~14~~. The method of claim 14 wherein said first and second amino acids are cysteine.

16~~15~~. The method of claim 15 wherein said nucleophilic reagent is selected from the group consisting of phenol or thiphenol.

17~~16~~. The method of claim 14 wherein said synthetic polypeptide further comprises a sulfated tyrosine at the position 7 amino acids from a natural C terminus of said sequence, and said therapeutic polypeptide preferentially binds a CCK-A receptor.

18~~17~~. The method of claim 17 wherein said first and second amino acids are cysteine.

19~~18~~. The method of claim 18 wherein said nucleophilic reagent is selected from the group consisting of phenol or thiphenol.

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